

## Density Lab

Date:

**Question:** How does changing the volume & mass of water affect its density?

### Variables

*Manipulated variable* \_\_\_\_\_ (thing that changes in the experiment)

*Responding variable* \_\_\_\_\_ (thing you are measuring in an experiment)

*Controlled variable* \_\_\_\_\_ (thing that stays the same in an experiment)

### Hypothesis

If \_\_\_\_\_ then, \_\_\_\_\_ because,  
\_\_\_\_\_.

**Materials:** Water, Triple Beam Balance, Beakers, Graduated Cylinder

### Procedure

1. Find the density of 25 ml of water.
2. Find the density of 50 ml of water.
3. Find the density of 75 ml of water.
4. Find the density of 100 ml of water.

**Data Table:** Create a data table for your measurements.

Volume(ml)	Mass(g)	Density(g/ml)
25ml		
50ml		
75ml		
100ml		

**Data Analysis:** Use a ruler to create a line graph that plots volume vs. density.

**Conclusions:** Write a one-paragraph conclusion where you answer the lab question and support your answer with data you collected and examples. Following ELA rules!

1. Did the density of the water change?
2. Why can we say that density is a characteristic of a substance?
3. Why do you think density is frequently located on the periodic table of elements for each element?
4. In an oil spill, does it matter how much oil is spilled? Or will oil behave the same way regardless of the amount spilled?